

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/083,574
Attorney Docket No. Q68729

REMARKS

Claims 1- 7 have been examined. Claims 2 and 3 are canceled. Therefore, claims 1 and 4-7 are all the claims pending in the application.

I. Written Description Rejection

The Examiner rejects the specification under 35 U.S.C. § 112, first paragraph, as lacking full, clear, and concise terms. Applicants submit that the original specification, drawings, and claims (as filed) describe the claimed invention in sufficient detail such that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention, in accordance with 35 U.S.C. § 112, first paragraph (see MPEP 2163).

In particular, with respect to the phrases of the specification that are cited by the Examiner, Applicants believe that these phrases merely are grammatical errors resulting from the translation of the present application from the Japanese language into the English language. Therefore, Applicants amend the specification, as shown in the attached Appendix, to correct these minor translation errors.

Further, Applicants respectfully point out to the Examiner that this subject matter clearly is described elsewhere in the specification; and therefore, Applicants' original disclosure clearly satisfies the written description requirement. For example, the subject matter described at page 3, lines 17-19, is clearly described at page 10, lines 8-9. Thus, Applicants submit that the instance cited by the Examiner merely is a grammatical error resulting from translating the specification from Japanese to English.

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With respect to the phrases at page 3, lines 10-12 and page 6, lines 5-7, Applicants submit that a person of skill in the art clearly would understand the claimed invention, as described in the original disclosure. That is, the original disclosure clearly describes that the a lock canceller 13 cancels the engagement between the locking projection 2 and the locking retainer 11. Therefore, a person of skill in the art clearly would have understood that a lock canceller 13 which “cancels the engagement between” a locking projection 2 and a locking retainer 11 describes a lock canceller 13 which annuls the engagement between the elements, or in other words, disengages the elements.

Additionally, we note that Applicants are not required to use standard terminology to describe the invention; instead, the invention merely must be described in sufficient detail such that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention, in accordance with 35 U.S.C. § 112, first paragraph (see MPEP 2163), and such that a person of skill in the art would be able to make and use the claimed invention (see MPEP 2164).

Further, Applicants submit that the description of the invention is not inconsistent or contrary to the ordinary meaning of the terms used to describe the invention. However, to more clearly define this feature, Applicants add a clarifying sentence to the specification that states that the lock canceller 13 disengages the locking projection 2 from the locking retainer 11 (see attached Appendix). Applicants note that this amendment to the specification does not constitute the addition of new matter, since this feature can be understood clearly from the original disclosure, the drawings, and the claims.

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For at least the foregoing reasons, Applicants respectfully request the Examiner to withdraw the written description rejection.

II. Indefiniteness Rejections

The Examiner rejects claims 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants amend claims 1, 6, and 7 to more clearly define the present invention. Applicants believe that these amendments should overcome the Examiner's applied rejection, and therefore request the Examiner to withdraw this rejection.

III. Anticipation Rejections

The Examiner rejects claims 1-7 under 35 U.S.C. § 102(b) as being anticipated by Plyler (U.S. Patent No. 5,605,471). For at least the following reasons, Applicants traverse this rejection.

As a preliminary matter, claim 1 has been amended to include the additional recitations of claims 2 and 3. Thus, claims 2 and 3 correspondingly have been canceled. Additionally, claims 6 and 7 are amended to change their dependency from claim 2 to claim 1 (which now includes the recitations of claim 2).

In the present Office Action, the Examiner alleges that Plyler discloses all of the features of claims 1-7. In particular, the Examiner asserts that the member 49 of Plyler corresponds to the claimed lock canceller. However, Applicants respectfully disagree with the Examiner's position. That is, Applicants submit that the member 49 of Plyler is not a lock canceller, but instead, merely prevents the member 81 from moving rearwards (toward the claimed first

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position) during the engaging operation, as is clear from Figure 5 of Plyler. For example, to disassemble the housings of Plyler, the member 81 (compared by the Examiner to the claimed engagement detector 20) is pushed rearwardly (see col. 4, lines 45-55). According to Plyler, this allows the assurance device to be disengaged from the locking surface and moved to the first position (shown in Fig. 4), such that the locking surface and the latching arm can be disengaged.

In comparison, claim 1 recites, *inter alia*, “a lock canceller, which is operable to disengage the retainer from the projection only when the engagement detector is placed at the first position” and “the retainer is still locked at the complete engagement position by the engagement detector in a case where the lock canceller is manipulated when the engagement detector is placed at the second position”. In the claimed invention, the engagement detector 20 also has to be forcibly pushed rearwardly, as shown in Figure 7. However, in the present invention, the projection 2 and the retainer 11 cannot be disengaged only by this operation. Instead, the lock canceller 13 additionally must be actuated to disengage the projection 2 and the retainer 11, in addition to the forcibly pushing the engagement detector 20 rearward. Applicants submit that Plyler neither discloses nor suggests such a lock canceller, as recited in claim 1.

For at least the foregoing reasons, Applicants submit that Plyler neither discloses nor suggests a lock canceller, which is operable to disengage the retainer from the projection only when the engagement detector is placed at the first position, so that the retainer is still locked at the complete engagement position by the engagement detector when the engagement detector is placed at the second position, as recited in claim 1. Thus, since Plyler neither discloses nor

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suggests all of the recitations of claim 1, Applicants request the Examiner to withdraw the § 102 rejection of claims 1 and 4-7.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


John J. Dresch
Registration No. 46,672

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

At page 3, replace the last full paragraph with the following new paragraph:

According to the above configuration, it is possible to prevent the housings from being disengaged due to careless or [the] erroneous operation of the lock canceller[with careless]. Since the retainer serves not only as an engagement member but also as an assisting member for the visual confirmation of the engagement state, and since the engagement detector serves not only as an assisting member for the visual confirmation of the engagement state but also as an engagement retaining member, it is possible to simplify the structure of the connector housings, make the connector housings compact, and lower the cost.

At page 6, replace the first full paragraph with the following new paragraph:

As shown in Fig. 1B, the locking member 10 includes a locking arm 12 supported by a pair of supporters 14 in a cantilevered manner, on the second connector housing 1b. The locking retainer 11 is formed on a free end portion of the locking arm 12. The locking member 10 also includes a lock canceller 13 for canceling the engagement between the locking projection 2 and the locking retainer 11, or in other words, disengaging the locking projection 2 from the locking retainer 11.

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At page 6, replace the second paragraph with the following new paragraph:

The engagement detector 20 includes a detection arm 21 extending in a cantilevered manner. A detection hook 22 is formed on a free end portion of the detection arm 21. The detection hook 22 is to be interfered with the locking retainer 11 for detecting an engagement state of the connector housings 1a and 1b. The engagement detector 20 is held in the second connector housing 1b so as to be slidable between a locked position and an engagement confirming position (in an arrow C direction) as described later.

At page 7, replace the second full paragraph with the following new paragraph:

When the first connector housing 1a is inserted into the second connector housing 1b, as shown in Fig. 3, a first face 2a of the locking projection 2 and a corner formed by second and third faces 11b and 11c of the locking retainer 11 interfere with each other. However, since the first face 2a of the locking projection 2 is sloped with respect to the inserting direction of the first connector housing 1a, the locking arm 12 undergoes flexible deformation, and the locking retainer 11 rides on the first face 2a of the locking projection 2. Here, to facilitate the riding of the locking retainer 11 on the first face 2a of the locking projection 2, the corner [of the corner] formed by the second and third faces 11b and 11c of the locking retainer 11 is rounded.

At pages 8-9, replace the bridging paragraph with the following new paragraph:

Rounding the corner [of a corner] formed by first and second faces 22a and 22b of the detection hook 22, and providing a third face 2c on the locking projection 2 and a fifth face 11e

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on the locking retainer 11, the free movement of the detection hook 22 on the second face 2b of the locking projection 2 and the fourth face 11d of the locking retainer 11 is facilitated.

At page 10, replace the third full paragraph with the following new paragraph:

Here, since the manipulation stopper 5 is provided on the second connector housing 1b, even if the lock canceller 13 is manipulated excessively with carelessness[careless], the supporters 14 will not undergo plastic deformation due to its excess displacement.

At pages 10-11, replace the bridging paragraph with the following new paragraph:

For example, [to the] contrary to the above embodiment, the first connector housing 1a may be provided with the locking member 10 and the engagement detector 20, and the second connector housing 1b may be provided with the locking projection 2. Further, two or more detection arms may be provided to improve the strength of engagement.

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A connector, comprising:
 - a first housing, provided with a projection;
 - a second housing, provided with a retainer which is operable to engage [engaged with] the projection of the first housing; [and]

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including a detection arm
an engagement detector, held in the second housing and [so as to] slidable between a first position and a second position; and

when manipulated holding a
a lock canceller, which is operable to disengage the retainer from the projection only
when the engagement detector is placed at the first position,

wherein:

the retainer prevents[retains] the engagement detector from sliding from [at] the first position [such that the engagement detector is slidable] to the second position except[only] when the projection and the retainer are completely engaged with each other at a complete engagement position; [and]

the engagement detector locks the retainer at the complete engagement position when the engagement detector is placed [in]at the second position; and

the retainer is still locked at the complete engagement position by the engagement detector in a case where the lock canceller is manipulated when the engagement detector is placed at the second position.

6. (Amended) The connector as set forth in claim 1[claim 2], wherein the second housing further comprises [is formed with] a stopper which limits the range of movement of [prevents] the lock canceller [from being manipulated excessively].

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7. (Amended) The connector as set forth in claim 1[claim 2], wherein the lock canceller comprises[is formed with] a stopper which limits the range of movement of [prevents] the lock canceller [from being manipulated excessively].